CLAIMS

1. A composite material comprising a plurality of cores of ultra-hard material, or the components for making an ultra-hard material, dispersed in a matrix, the matrix comprising the components for making an ultra-hard material of a grade different to that of the cores, and a suitable binder.

2. A composite material according to claim 1, wherein the ultra-hard material is polycrystalline diamond (PCD) or polycrystalline cubic boron nitride (PcBN).

3. A composite material according to claim 2, wherein the cores are provided as individual particles or in the form of granules.

4. A composite material according to any one of the preceding claims, wherein the cores are made from a fine-grained PCD grade material and the matrix of a coarser PCD grade material than that of the cores.

5. A composite material according to any one of claims 1 to 3, wherein the cores are made from a coarser PCD grade material and the matrix of a fine-grained PCD grade material.

6. A composite material according to claim 4 or claim 5, wherein the fine-grained PCD grade material has grains having a grain size in the range of about 0.1 to about 20 microns.

7. A composite material according to any one of claims 4 to 6, wherein the coarser PCD grade material has grains having a grain size in the range of about 10 to about 100 microns.

8. A composite material according to any one of claims 1 to 5, wherein the cores and matrix are made from the same type of ultrahard

material, and the particle size of the cores differs from that of the matrix by between about 5 and about 70 microns.

9. A composite material according to any one of claims 1 to 3, wherein the cores and the matrix are made from the same ultrahard material, but with different binder phases.

10. A composite material according to any one of claims 1 to 3, wherein the cores are formed of PCD and the matrix of PcBN type material.

11. A composite material according to any one of claims 1 to 3, wherein the cores are formed from PcBN type material.

12. A composite material according to any one of claims 1 to 3, wherein the cores and matrix are made from mixtures of two types of ultrahard materials, those mixtures being substantially different from each other.

13. A method of producing a composite material as defined in any one of claims 1 to 12, which includes the steps of:

(i) providing a plurality of cores of an ultra-hard material or the components for making an ultra-hard material;

(ii) providing the components for making an ultra-hard material of a different grade to that of the cores and a suitable binder; and

(iii) consolidating the cores, components and binder to produce a composite material.

14. A method of producing a tool component including the steps of:

(i) providing a substrate;

(ii) providing a composite material as defined in any one of claims 1 to 12;

(iii) placing a layer of the composite material on a surface of the substrate to produce an unbonded component; and.

(iv) subjecting the unbonded component to conditions of elevated temperature and pressure suitable to produce an ultra-hard material.

15. A method according to claim 13 or claim 14, wherein the cores are provided as granules coated with the components for making an ultra-hard material and the binder.

16. A method according to claim 13 or claim 14, wherein the cores are provided as granules, and the granules are mixed with the components for making an ultra-hard material and the binder.